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REMARKS

Summary of the Office Action

Claims 1-11 stand rejected under 35 U.S.C. §101 because the claimed invention is

directed to non-statutory subject matter.

Claims 1-19 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

Claims 1-19 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent

No. 5,950,177 to <u>Lupien et al.</u>

Summary of the Response to the Office Action

Claims 1-19 have been amended to more clearly define the invention and claims.

Accordingly, claims 1-19 are presently pending.

The Rejection Under 35 U.S.C. §101

Claims 1-11 stand rejected under 35 U.S.C. §101 because the claimed invention allegedly

is directed to non-statutory subject matter. The rejection is traversed because claims 1-11 are

directed to "a method for online trading assets via transactionally linked virtual markets."

Online trading refers to electronic trading of assets through computer systems. As such,

Applicant respectfully submits that the rejection under 35 U.S.C. §101 should be withdrawn

because the claimed invention is directed to statutory subject matter and is not merely directed to

a "human making mental computation."

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The Rejection Under 35 U.S.C. §112

Claims 1-19 stand rejected under 35 U.S.C. 112, second paragraph, allegedly as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 5-11 are rejected as allegedly indefinite because it is unclear if the trading strategies (plural) of line 5 is the same as the trading strategy (singular) of lines 7 and 9. Claims 1, 5, and 7-11 have been amended to clarify the difference between trading strategies and trading strategy. Claim 1 is also rejected as indefinite because the Examiner does not know what is meant by the phrase "atomic execution." Applicant respectfully submits that the term "atomic execution" in claims 1, 11, and 12 is defined in the Detailed Description of the Specification as the execution of all or none of the orders that make up a strategy. Page 17, line 8-9. According to the MPEP, "a term used in the claims may be given a special meaning in the description." MPEP 608.01(o)

Claim 3 is rejected as indefinite because it is unclear whether "a virtual market" is included in the previously recited "virtual market" of claim 1 or a new, different market. Claim 3 has been amended to clarify the term "a virtual market." Claim 3 is also rejected as indefinite because the Examiner does not understand what is meant by the phrase "conventional market." Applicant respectfully submits that the term "conventional market" in claim 3 is defined in the Detailed Description of the Specification as "existing conventional markets such as the market for shares of IBM and the NYSE." Page 6, line 9-10.

Claim 11 is rejected because the phrase "is guaranteed includes the step" is confusing.

Claim 11 has been amended to clarify this phrase.

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Claims 12-19 are rejected as indefinite because they recite a system and it is unclear from

the term "system" and the remaining claim language whether the Applicant is claiming an

apparatus or method. Applicant respectfully submits that the system claimed in Claims 12-19 is

directed to an apparatus. Claims 12-19 are not method claims in that they do not include steps

for describing how a product is made.

Claim 15 is rejected as indefinite because it is unclear whether "a virtual market" is

included in the previously recited virtual markets (plural) or a new, different market. Claim 15

has been amended to clarify the term "a virtual market."

The Rejection Under 35 U.S.C. §102(b)

Claims 1-19 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent

No. 5.950,177 to Lupien et al. To the extent the Examiner may consider this rejection to apply

to the amended claims, the rejection is traversed as being based on a reference that neither

teaches nor suggests the novel combination of features now clearly recited in independent claims

1, 12, and 19.

Applicant respectfully submits that <u>Lupien et al.</u> does not teach or suggest at least the

elements in independent claim 1 of optionally defining cross-market trading strategies that will

span at least two virtual markets and that define relationships between virtual markets;

automatically calculating prices and amounts for orders generated by cross-market trading

strategies; automatically generating orders for cross-market trading strategies and routing those

orders to their respective virtual markets; and automatically matching and executing both

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individual orders and orders generated by cross-market trading strategies for virtual markets in such a way that atomic execution of cross-market trading strategies is guaranteed.

Lupien et al. also does not teach or suggest at least the elements in independent claim 12 that disclose a a plurality of active market servers to support the operation of each of the created virtual markets; an order creation mechanism to allow users to create, buy or sell orders related to the virtual markets; a strategy creation mechanism to enable users to define cross-market trading strategies and specify the virtual markets referenced by the cross-market trading strategies; a plurality of active strategy servers to generate new orders on behalf of the specified cross-market trading strategies and to dynamically coordinate with the plurality of active market servers to continuously monitor relationships between virtual markets and modify orders generated on behalf of cross-market trading strategies as needed in order to insure atomic execution of the cross-market trading strategies.

Furthermore, <u>Lupien et al.</u> does not teach or suggest at least the elements in independent claims 19 that disclose a plurality of strategies servers for generating new orders, and routing the generated orders to each market defined in a trading strategy and coordinating with the plurality of market servers to insure atomic execution of all orders that make up the trading strategy.

<u>Lupien et al.</u> instead discloses a network that allows traders to import a satisfaction density profile that characterizes the trader's degree of satisfaction with prices and sizes of counter-trades that match orders represented in the trader's satisfaction density profile so that the mutual satisfaction of all traders is maximized. Col. 3, lines 49-58, Col. 5, line 51 – Col. 6, line 43, Fig. 2-3D, Col. 8. lines 53-57, and Fig. 7. Once a trader completes the satisfaction density profile, it is sent to a central matching controller, which anonymously matches buy and sell

orders. Col. 9, lines 18-23 The central matching controller calculates for every buy/sell profile pair, a mutual satisfaction cross product that represents the degree to which the buy/sell pair can satisfy each other. The central matching controller then ranks the individual grid values of the mutual satisfaction cross products for all buy/sell combinations and matches in order the buy/sell orders that are represented by the ranked grid values. Col. 4, lines 11-30, Col. 8, lines 23-55, and Fig. 8. <u>Lupien et al.</u> further discloses that the network handles baskets of securities by allowing the trader to link satisfaction density profiles for each security in the basket and the central matching controller combines the linked profiles into one profile. Col. 4, lines 32-45. <u>Lupien et al.</u> describes in detail a scenario where the execution status of buy and sell baskets for a trader cannot become "too far unbalanced on either side, in dollars or shares or both." Col. 13, lines 4-67.

Applicant respectfully asserts that <u>Lupien et al.</u> simply does not teach, suggest, or discuss in anyway cross-market trading strategies that span at least two virtual markets and that define relationships between the virtual markets. <u>Lupien et al.</u> also does not disclose automatically calculating prices and amounts for orders generated by cross-market trading strategies, automatically generating orders for cross-market trading strategies and routing those orders to their respective virtual markets, and automatically matching and executing both individual orders and orders generated by cross-market trading strategies for virtual markets in such a way that atomic execution of cross-market trading strategies is guaranteed.

In <u>Lupien et al.</u> a satisfaction density value in the satisfaction density profile characterizes the trader's degree of satisfaction with "predefined" prices and quantities for counter-trades that match orders entered by the trader. Col. 3, lines 59- Col. 4, line 5, Fig. 2-3D.

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Thereafter, according to <u>Lupien et al.</u>, the central matching controller calculates for every buy/sell profile pair, a mutual satisfaction cross product, ranks the individual grid values of the mutual satisfaction cross products for all buy/sell combinations, and matches in order the buy/sell orders that are represented by the ranked grid values. Col. 4, lines 11-30, Col. 8, lines 23-55, and Fig. 8. As such, <u>Lupien et al.</u> uses a static matrix to define the trader's degree of satisfaction with "predefined" prices and quantities for counter trades that match orders entered by the trader. Furthermore, according to <u>Lupien et al.</u>, each block of orders must be manually entered by a human being in the form of a satisfaction density profile. As discussed by <u>Lupien et al.</u>, once the orders comprising the satisfaction density profile have been either matched or cancelled, no further transaction for that profile occurs until a new satisfaction density profile is transmitted to the central matching controller. Col. 4, lines 6-14. <u>Lupien et al.</u> neither teaches, suggests, or discusses a continuous, dynamic ongoing process of automatic order creation, monitoring, and modification as disclosed in the present invention.

While <u>Lupien et al.</u> discusses handling baskets of securities, nowhere does <u>Lupien et al.</u> either teach, suggest, or discuss dynamically matching and executing both individual orders and orders generated by trading strategies in such a way that atomic execution of trading strategies is guaranteed. <u>Lupien et al.</u> also does not teach, discuss or suggests a strategy creation mechanism to enable users to specify trading strategies for the virtual markets and a plurality of active strategy servers to generate new orders on behalf of the specified trading strategies and to coordinate with the plurality of active market servers to insure atomic execution of the trading strategies; and a linking mechanism to enable orders and counterorders from different servers to be linked.



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Furthermore, <u>Lupien et al.</u> does not teach, discuss, or suggest a plurality of strategies servers for generating new orders, and routing the generated orders to each market defined in a trading strategy and coordinating with the plurality of market servers to insure atomic execution of all orders that make up the trading strategy.

Therefore, Applicant respectfully submits that the rejection under 35 U.S.C. §102(b) should be withdrawn because <u>Lupien et al.</u> does not teach or suggest each feature of independent claims 1, 12, and 19. Furthermore, Applicant respectfully asserts that dependent claims 2-11, and 13-18 are allowable at least because of their dependence on claims 1, 12, and 19 respectively and the reasons set forth above.

Conclusion

In view of the foregoing, Applicant respectfully requests reconsideration and the timely allowance of pending claims 1-19. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative to expedite prosecution.



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EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted, MORGAN, LEWIS & BOCKIUS LLP

By: arline P. Noal

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